

ITC V3 devices 22"

Designation	Type	Display / resolution	Article number, device with Siemens logo	Article number, device without Siemens logo
ITC2200 V3	Built-in unit	22" Full HD	6AV6646-1BA22-1AA0	6AV6646-1BA22-1NA0
		22" Full HD	6AV6646-1BA22-1AA1	6AV6646-1BA22-1NA1
ITC2200 V3 PRO	PRO device for pedestal (extendable, flange bottom)	22" Full HD	6AV6646-1BB22-1AA0	6AV6646-1BB22-1NA0
		22" Full HD	6AV6646-1BB22-1AA1	6AV6646-1BB22-1NA1
ITC2200 V3 PRO	PRO device for support arm (not extendable, flange top)	22" Full HD	6AV6646-1BC22-1AA0	6AV6646-1BC22-1NA0
		22" Full HD	6AV6646-1BC22-1AA1	6AV6646-1BC22-1NA1
ITC2200 V3 PRO	PRO device for support arm (extendable, round tube)	22" Full HD	6AV6646-1BD22-1AA0	6AV6646-1BD22-1NA0
		22" Full HD	6AV6646-1BD22-1AA1	6AV6646-1BD22-1NA1

ITC V3 devices 24"

Designation	Type	Display / resolution	Article number, device with Siemens logo	Article number, device without Siemens logo
ITC2400 V3	Built-in unit	24" Full HD	6AV6646-1BA24-0AA1	6AV6646-1BA24-0NA1
ITC2400 V3 PRO	PRO device for pedestal (extendable, flange bottom)	24" Full HD	6AV6646-1BB24-0AA1	6AV6646-1BB24-0NA1
ITC2400 V3 PRO	PRO device for support arm (not extendable, flange top)	24" Full HD	6AV6646-1BC24-0AA1	6AV6646-1BC24-0NA1
ITC2400 V3 PRO	PRO device for support arm (extendable, round tube)	24" Full HD	6AV6646-1BD24-0AA1	6AV6646-1BD24-0NA1

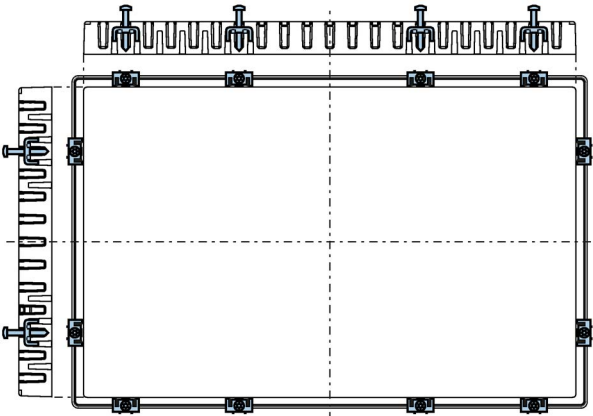
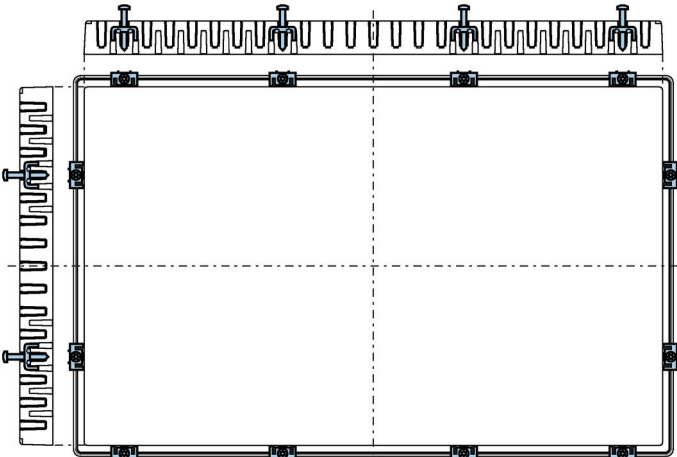
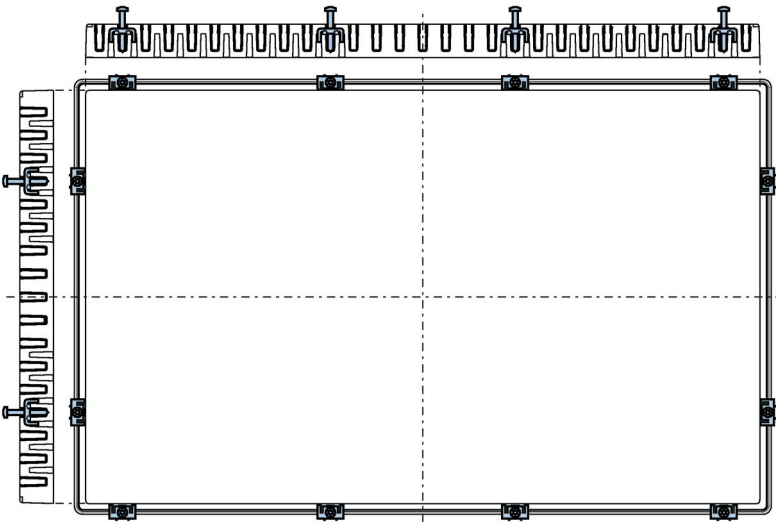
ID Link for the digital type plate

The ID Link is a unique identifier in accordance with IEC 61406, which you will find in future as a QR code on your product and the product packaging.

You can recognize the ID Link from the frame, which has a black corner at the bottom right. The ID Link takes you to the digital type plate of your product.

Scan the QR code on the product or on the packaging label with a smartphone camera, a bar code scanner or a Read app. Call the relevant link.

In the digital type plate, you will find product data, manuals, Declarations of Conformity, certificates and other helpful information on your product.

Device	Positions of the mounting clips
ITC1500 V3	
ITC1900 V3	
ITC2200 V3	

- Only one connection can be active at any given time. A message is displayed if you try to open a Citrix connection while a Citrix connection is already in place. The user is informed that the existing connection must be closed before the new connection can be established.
- The following functions are not available during the configuration of Citrix connections:
 - "Autostart connection"
 - "Reconnect automatically"
- The Citrix client supports the following certificates:

Certificate	Issuer
Class4PCA_G2_v2.pem	VeriSign Trust Network
Class3PCA_G2_v2.pem	VeriSign Trust Network
BTCTRoot.pem	Baltimore Cyber Trust Root
GTECTGlobalRoot.pem	GTE Cyber Trust Global Root
Pcs3ss_v4.pem	Class 3 Public Primary Certification Authority
GeoTrust_Global_CA.pem	GeoTrust

5.6.3 VNC

Introduction

Use VNC for remote control of another computer via a network. VNC is the abbreviation for "Virtual Network Computing" and shows the desktop of another computer. In contrast to RDP, all clients display the same server screen.

Requirement

The operating system you use does not play a role because the software is available for all current platforms. The connection via the network uses the TCP/IP protocol and should be configured with a password for security reasons.

Layout

VNC works according to the client-server model. The program consists of the server module VNC server and the client component VNC Viewer. The server program runs on the computer whose screen outputs you want to monitor, whereas the clients receive the screen outputs and in turn send keyboard and mouse inputs to the server.

See also

System requirements (Page 77)

5.6.4 Sm@rtServer

Introduction

With the SIMATIC WinCC Sm@rtServer option, HMI devices communicate with each other via PROFINET. Sm@rtServer thus enables client/server configurations for distributed operator stations in a system.

A description of the Sm@rtServer configuration can be found in the online help of WinCC or in the "WinCC Professional Options" manual.

Requirement

A server HMI device on which the Sm@rtServer has been started is required for client/server operation via Sm@rtServer.

Operating principle

If the Sm@rtServer has been started on a server HMI device, the Industrial Thin Client can access the server HMI device via the "Sm@rtServer" connection type. Depending on the configuration of the Sm@rtServer on the server HMI device, the Industrial Thin Client can monitor or operate the project on the server HMI device.

Licensing

You do not require any licenses in order to access an HMI device. The SIMATIC WinCC Sm@rtServer option is license-free as of WinCC V14 (TIA Portal). There can only be a project compiled with the Sm@rtServer option on the server HMI device you are accessing with the Industrial Thin Client.

See also

System requirements (Page 77)

5.6.5 WinCC OA

Introduction

SIMATIC WinCC OA (Open Architecture) is a SCADA system for visualizing and operating processes, production work-flows, machines and plants in all industries. As of WinCC OA V3.16, ITC V3 devices are supported.

You can find the description of WinCC OA configuration in the online help of WinCC OA under "Special Functions > Industrial Thin Client". You can find additional information on the Internet at SIMATIC WinCC Open Architecture

(<https://new.siemens.com/global/en/products/automation/industry-software/automation-software/scada/simatic-wincc-oa/wincc-oa-basic-software.html>).

Requirement

A SIMATIC WinCC OA server that supports Industrial Thin Clients is a requirement for operating a SIMATIC WinCC OA connection.

Operating principle

The Industrial Thin Client operates similarly to a SIMATIC WinCC OA WebClient.

The WinCC OA server provides the client components to the Industrial Thin Client.

Licensing

You do not require any licenses on the Industrial Thin Client in order to access WinCC OA. The license is covered by the user interface license on the WinCC OA server. More on this in the online help of WinCC OA.

See also

System requirements (Page 77)

5.7 Operating ITC

5.7.1 Notes on Sm@rtServer access

Monitoring mode

If you access a device on which only monitoring mode has been configured for Sm@rtServer access, you can only monitor the device; you cannot intervene for control purposes.

Operating right for Sm@rtServer

When you access a device, it is possible that this device is being used at the time. In this case, the Industrial Thin Client does not have operating rights.

If you touch the touch screen, a message is displayed stating that no operator input is possible. How you request or force operating rights depends on the configuration on the device you are accessing with the Industrial Thin Client.

5.7.2 Operating the taskbar

5.7.2.1 Structure and functions of the taskbar

If the taskbar is configured accordingly in the desktop settings, the taskbar will be displayed after the device is switched on. See also section "The "Desktop" submenu (Page 105)".



The operator cannot change the position of the taskbar on the touch screen, but the administrator can do so in the desktop settings.

Functions

The following functions can be called from the taskbar.



Start menu

- Web browser: opens the integrated Web browser, which displays the device information as the homepage by default, see also section "The "Information" submenu (Page 86)". The web browser supports HTML, XML, CSS, JavaScript and Java so that you can establish any type of connection to the Intranet/Internet.
- Screen brightness: adjusts the screen brightness of the background lighting. Two buttons "+" and "-" are displayed on the right for this purpose.
- Clean screen: You use this function to disable the touch screen for input for a period of 15 seconds, for example, if the screen is being cleaned, see section "Cleaning the device (Page 165)".
- USB devices: see section "Use USB memory devices (Page 125)".
- Restart: reboots the device.
When the "Restart" menu command is hidden, select "Permit restart", see section "The "Passwords" submenu (Page 102)".
- Configuration: central configuration settings of the device.



Connection list, shows the client-server connection that is currently displayed

If you touch the  icon, a list of started client-server connections is displayed. Use the "Favorites" icon to start a client-server connection. The icons have the following meaning:

- Green check mark: Client-server connection is running.
- Red X: Client-server is interrupted, see section "Interrupting and restoring a connection (Page 82)".

Note**Maximum number of connections**

A maximum of 5 client-server connections can be started at the same time.

When an attempt is made to start a sixth connection, an error message appears and a selection of started connections is displayed from which a connection can be closed.

You close a connection using the "X" on the right.



Go to the preceding started client-server connection



Go to the next started client-server connection



Favorites

List of client-server connections selected for the taskbar. If you select a client-server connection from the list, the corresponding connection will be established.



On-screen keyboard

Displays the on-screen keyboard. Use the on-screen keyboard to enter alphanumeric values, special characters and function key commands. The on-screen keyboard is automatically displayed if you edit a field. If you touch the icon again, the on-screen keyboard is hidden.

Showing a minimized taskbar

If the "Minimized" option is selected in the "Taskbar" area in desktop settings "Configuration > Desktop", the taskbar is only displayed again when you touch the button with the "Maximize" arrow on the edge of the screen.

Taskbar is hidden

If the "Always hidden" option is selected in the "Taskbar" area in the desktop settings, the taskbar will always be hidden and cannot be displayed.

Note

If the administrator saves changes of configuration settings, the display and position of the taskbar may be changed.

5.7.2.2 Starting a connection

Overview

You can connect to a server From the Industrial Thin Client according to the configured connection settings. The following connection types are supported:

- RDP
- Sm@rtServer/VNC
- WinCC OA
- Web: In addition to the web connection settings, web settings are required for the browser that displays the web connection.

Note

Limited number of browser instances

A maximum of 5 browser instances can be started at the same time. When you open a sixth browser instance, an error message appears.

You can open the Web browser separately to establish a connection of any kind to the Internet regardless of the maximum number of browser instances and client-server connections.

Note

Limited number of client-server connections

A maximum of 5 client-server connections can be started at the same time. If a 6th connection is activated, an error message appears

Procedure for client-server connection

Proceed as follows to establish a client-server connection:

1. Touch the  "Favorites" icon in the taskbar.
2. Select a client-server connection.

The configured connection to the server or system network will be started.

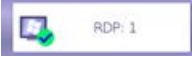
Procedure for web browser

Proceed as follows to establish a connection to the Internet or an intranet:

1. Select the "Web browser" menu command in the taskbar of the  Start menu. The web browser will open.
The IP address of the device is stored as the home page. The home page displays important device data and network settings.
2. Specify a valid Internet address in the address line of the web browser.

5.7.2.3 Changing from one connection to another

You can easily change between the started client-server connections.

-  Connection list: Select a different client-server connection using the  icon.
-  Go to the preceding started client-server connection.
-  Go to the next started client-server connection.

5.7.2.4 Terminating a connection

Introduction

You can terminate a client-server connection as follows:

- Via the menu command "Close".
- For additional options, refer to the section "Special features".

Procedure

Proceed as follows to terminate an active client-server connection:

1. Touch the "Connection list" icon in the taskbar. A list of all started client-server connections opens.
2. Choose the "Close" menu command next to the connection.
3. If required, enter the connection password, see section "The "Passwords" submenu (Page 102)".

Note

Misuse

RDP can be set on the server so that the user stored in the connection settings remains logged in even after an RDP connection has been terminated.

Make sure that only authorized persons have access to the device or log off (see Special features).

Administrator password

You can also enter the administrator password instead of the connection password.

Special features

RDP

Note

Terminate the RDP connection alternatively by using "Start" > "Disconnect". The "RDP session has been terminated by peer!" dialog box will be displayed on the device; acknowledge it with "OK". The connection password is not requested.

You log off from the RDP server with "Start" > "Logoff".

5.7.3 Operating the on-screen keyboard

On-screen keyboard

If you have not connected an external keyboard to the device, use the on-screen keyboard for inputs, e.g., in the configuration settings.

The on-screen keyboard is opened automatically provided:

- You activate an entry field in the configuration dialogs of the Thin Client.
- You use the Sm@rtServer connection type and activate an entry field on the server.
- As of firmware version V3.2.3.0: You use the Web Server connection type and activate an entry field on the server, such as a runtime input/output field on a Unified device.

Note

On-screen keyboard

An English and German on-screen keyboard is available on the device. Depending on the delivery version of the device, additional languages may be available, for example, Hungarian or Spanish. The keyboard language can be changed in the menu "Configuration > System". The following applies to the user interface:

- With German keyboard layout: German user interface
 - With English keyboard layout: English user interface
 - For all other keyboard layouts: English user interface
-

Operating the on-screen keyboard

You operate the on-screen keyboard by directly touching the keys of the keyboard on the touch screen. The functions of the keys on the on-screen keyboard are basically the same as those on an external keyboard.



You position the screen keyboard as follows:

- In the desktop settings, you can position the on-screen keyboard at the top ① or bottom ④ edge of the screen.
- Depending on the position at the screen edge, the buttons ② and ③ on the right change:
- The button ② closes the on-screen keyboard.
- The button ③ moves the on-screen keyboard to the other edge of the screen (top or bottom).

Windows key

The "Win" key corresponds to the Windows key on a mechanical keyboard. You use this key to open the Windows Start menu.

Number pad

The on-screen keyboard has a separate number pad that you open with the "NUM" key. If you have connected an external keyboard, you cannot make any entries via the number pad of the external keyboard.

Latch function

If you keep the buttons <Ctrl>, <Alt>, <AltGr> and <WIN> pressed for some time, they are permanently enabled as though they are being pressed even after you have released them.

5.7.4 Use USB memory devices

Introduction

Use the USB port on the back of the device to access connected USB storage devices.

RDP

In the case of an RDP connection you have read and write access to one or several USB storage devices.

With active RDP connection the USB storage devices are exported to the RDP server. A folder with the name "media on <Client hostname>" is created in Windows Explorer, in which a separate subfolder is displayed for each USB storage device. If you change the host name in the configuration settings of the device, the name of the folder is adapted automatically on the RDP server.

Requirement

- The "Connect USB device as drive" option is selected in the connection settings in "Settings > Configuration > Connections".

Procedure

1. Insert the USB memory device in the USB port on the device.
2. Choose "Settings > USB devices" in the taskbar. A media explorer opens.
3. Touch the "View details" icon in the menu bar.
4. Open the desired folder in the tree menu on the left. Its content is displayed in the window on the right.
5. You can cut, copy, paste, and delete files via the menu bar.
6. You use the navigation buttons to navigate back, up, and to the root directory of the USB drive.

Removing a USB memory device

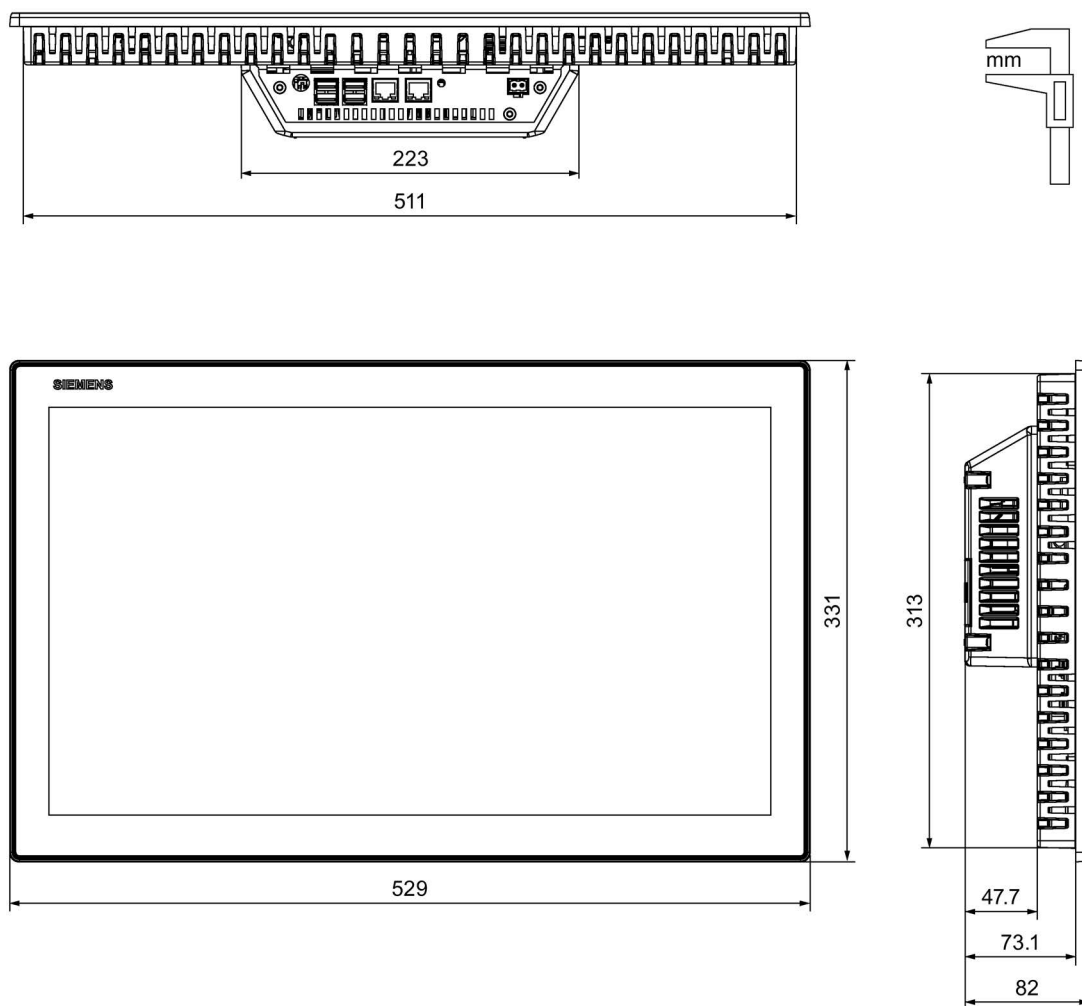
To remove the USB memory device, proceed as follows:

1. Make sure the device is no longer being accessed.
2. Close the accessing application.
3. Close the media explorer via the connection list in the taskbar.
4. Wait for 5 to 10 seconds.
5. Remove the USB memory device from the USB port of the device.

See also

Connecting a USB device (Page 65)

8.6.4 ITC2200 V3



8.7.2 ITC1900/2200/2400 V3 (PRO)

Weight

	ITC1900 V3	ITC2200 V3	ITC2400 V3
Weight without packaging, with power supply plug, mounting clips and strain relief plate	6.1 kg	7.2 kg	8.7 kg

Weight of PRO devices for support arm (not extendable, flange top) and for pedestal (extendable, flange bottom)

	ITC1900 V3 PRO	ITC2200 V3 PRO	ITC2400 V3 PRO
Weight without packaging	7.4 kg	8.5 kg	10.1 kg

Weight of PRO devices for support arm (extendable, round tube)

	ITC1900 V3 PRO	ITC2200 V3 PRO	ITC2400 V3 PRO
Weight without packaging	7.2 kg	8.1 kg	10.0 kg

Display

	ITC1900 V3 (PRO)	ITC2200 V3 (PRO)	ITC2400 V3 (PRO)
Type	LCD TFT		
Display diagonal	18.5"	21.5"	23.8"
Active display area	409.0 x 230.0 mm	476.0 x 267.8 mm	527.0 x 296.5 mm
Resolution HD devices	1366 x 768 pixels	-	-
Resolution Full HD devices	1920 x 1080 pixels	1920 x 1080 pixels	1920 x 1080 pixels
Possible colors	Up to 16 million		
Brightness control	Yes, value range 1 to 100		
Backlighting	LED		
Half Brightness Life time (MTBF 1)	50000 h	30000 h	30000 h
Pixel error class in accordance with ISO 9241-307	I		

¹ MTBF: Operating hours after which the maximum brightness is reduced by half compared to the original value. The MTBF increases with reduced brightness or with the use of a screen saver on the server.

Input device

	ITC1900 V3 (PRO)	ITC2200 V3 (PRO)	ITC2400 V3 (PRO)
Touch screen	Yes, projective-capacitive		

Memory

	ITC1900 V3 (PRO)	ITC2200 V3 (PRO)	ITC2400 V3 (PRO)
RAM	2 GB DDR3 SDRAM		
Memory	8 GB SSD		

Interfaces

	ITC1900 V3 (PRO)	ITC2200 V3 (PRO)	ITC2400 V3 (PRO)
X1 P1 PROFINET (LAN)	1 x RJ45 Gigabit Ethernet, 10/100/1000 Mbps ¹		
X1 P2 LAN	1 x RJ45 Gigabit Ethernet, 10/100/1000 Mbps ¹		
X61 ... X64 USB 2.0	4 x Host ²		

¹ With integrated switch (one IP address only), switch functionality only via LAN

² USB type A, maximum load 500 mA, equivalent to USB standard 2.0

Power supply

	ITC1900 V3 (PRO)	ITC2200 V3 (PRO)	ITC2400 V3 (PRO)
Rated voltage	24 V DC		
Permitted voltage range	+19.2 V to +28.8 V		
Voltage failure buffering time	20 ms, complies with PS2 according to IEC 61131-2		
Rated current	1.8 A	1.7 A	2.1 A
Rated current (min. ... max.), load-dependent	1.5 ... 2.2 A	1.4 ... 2.1 A	1.7 ... 2.6 A
Inrush current I ² t	0.5 A ² s		
Power consumption ¹	43.2 W	40.8 W	50.4 W
Maximum permitted transient	35 V (500 ms)		
Minimum time between two transients	50 s		
Internal protection	Yes		

¹ The power loss generally corresponds to the specified value for power consumption.

Miscellaneous

	ITC1900 V3 (PRO)	ITC2200 V3 (PRO)	ITC2400 V3 (PRO)
Audio reproduction	Via onboard beeper		